

# **TG6050**

# Ultra-Soft Thermal Conductive Pad

Version 2.130218

## **Ultra-Soft Thermal Conductive Pad**

TG6050 is an ultra-soft, silicone based thermal interface material. TG6050 has a low thermal impedance, conforms readily to surfaces due to its low hardness and provides a high dielectric breakdown voltage. TG6050 can be provided in various thicknesses and formats, such as custom die cuts, standard sheets or log rolls depending on the end application.

#### **Features**

Superior thermal conductivity Highly compressible Naturally tacky Low Shore 00 hardness Low oil bleed Electrically insulating

# **Applications**

Electronic components: IC, CPU, MOS LED, M/B, P/S, Heat Sink LCD, TV, Notebook PC, PC Telecom Device, Wireless Hub, etc. DDR II Module, DVD Applications, Hand-set applications, etc.

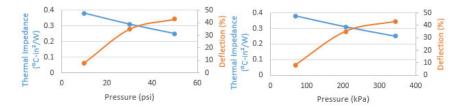
## **Properties**

✓ REACH Compliant

✓ ROHS Compliant

V Norta compliant				
Property	TG6050	Unit	Tolerance	Test Method
Colour	Red	-	-	Visual
Thickness	0.5 - 5.0	mm	-	ASTM D374
THICKNESS	0.0197 - 0.0787	Inch	-	ASTM D374
Thermal Conductivity	6	W/mK	±0.6	ASTM D5470
Flammability Rating	V-0	-	-	UL 94
Dielectric Breakdown Voltage	13	kV/mm	±1.3	ASTM D149
Weight Loss	<1	%	-	ASTM E595
Density	3.2	g/cm³	±0.2	ASTM D792
Working Temperature	-45 to 200	°C	-	-
Volume Resistance	>10¹²	0hm-cm	-	ASTM D257
Elongation	50	%	±13	ASTM D412
Tensile Strength	0.5	Kgf/cm²	±2	ASTM D412
Hardness	60	Shore 00	±15	ASTM D2240
Shelf Life	36	months	-	-
Shelf Life with adhesive (can be requalified for further 12)	12	months	-	-

### Thermal Impedance vs Pressure vs Deflection



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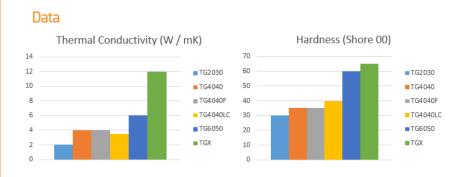
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# Standard Weights & Dimensional Tolerance

	Thickness (mm)	0.50	0.80	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
	100x100	16.00	25.60	32.00	48.00	64.00	80.00	96.00	112.00	128.00	144.00	160.00
Size	150x150	36.00	57.60	72.00	108.00	144.00	180.00	216.00	252.00	288.00	324.00	360.00
	300x300	144.00	230.40	288.00	432.00	576.00	720.00	864.00	1,008.00	1,152.00	1,296.00	1,440.00
	320x320	163.84	262.14	327.68	491.52	655.36	819.20	983.04	1,146.88	1,310.72	1,474.56	1,638.40

<sup>\*</sup> All measurements in mm

	Thickness (mm)	Tolerance (mm)			
	0.3	±0.03			
	0.5	±0.05			
	0.8	±0.08			
	1.0	±0.1			
	1.2	±0.12			
Die-Cut	1.5	±0.15			
Thickness	2.0	±0.2			
Tolerances	2.5 - 3.5	±0.25			
	4.0 - 4.5	±0.3			
	5.0	±0.35			
	6.0 - 8.0	±0.4			
	9.0	±0.45			
	10.0	±0.5			
	>10.0	±0.5			



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<sup>\*</sup> Data for design engineer guidance only. Observed performance varies in application. Engineers are reminded to test the material in application.